INSTRUCTIONS FORM F20a

REFINERY FUGITIVE VOC EMISSIONS

(Sources include: valves, flanges, seals, and drains)

Department of Environmental Quality

Division of Air Quality P.O. Box 144820

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DAQ ID For Office use only.

Pt. Source ID Provide identification number for each process.

SCC Enter the appropriate Source Classification Code (SCC).

See General Instructions for explanation.

Source Description Choose from the following:

1. Process drains - Wastewater separators w/o recovery systems and/or separator covers.

2. Process drains - Wastewater separator w/ recovery systems and separator covers.

3. Asphalt blowing.

4. Blind charging.

5. Vacuum jets.

6. Cooling towers.

7. Misc. sampling, sweetening, purging.

8. Pipeline valves.

9. Pipeline flanges.

10. Pump seals.

11. Mechanical pump seals.

12. Dual pump seals.

13. Purged seals.

14. Compressor seals.

15. Vessel relief valves.

16. Open ended lines and sampling valves.

Process Stream Type Select the following type of streams:

I. All streams.

Gas streams.

III. Light liquid and gas/liquid streams.

IV. Heavy liquid streams.

V. Hydrogen streams.

Number of Units List the total number of units in operation emitting fugitive

hydrocarbons (note: this is not the total checked for the year,

it is the actual number of units).

Refinery Feed or Water Specify feedstocks, products, or water.

Amount State the thru-put of feedstocks, products, or water.

Units Specify the thru-put units in 10³ bbl per year or 10³ gals per

year.

Emission Control Code Describe the control technology used such as traps, covers,

vapor recovery, etc. (Note: this field should be left blank if

leak/no leak emission factors were used).

% Control Efficiency Give the efficiency of the control method used.

If Control Is Other, List Describe the control equipment if other method was used.

VOC Emissions Calculate the amount of VOC in tons per. Provide complete

calculations on a separate sheet.

Estimate Code Provide the valid method code for quantifying actual

emissions of each pollutant. The valid method codes are listed in Table 5 of the General Instructions. These are the only codes which will be accepted. If the Estimate Code 8 (AP-42 factors) is used, provide the section number of AP-42

in the Comment column.

Emission Factor Provide the emission factor used to calculate the estimated

VOC emissions. This emission factor is the weighted average of the emission factor for leakers and the emission

factor for nonleakers.

Units Please provide the units of emission factor for the purpose of

review, such as lb/10³ gal, lb/10³ bbl, or kg/hr/source.

Percent Leakers Provide the percentage of leakers of those checked for the

entire year.

Emission Factor

for Leakers

Give the emission factor for leakers.

Units Provide the associated emission factor unit such as

lb/hr/source or kg/hr/source; the latter is preferred.

Emission factor for

Nonleakers

Give the emission factor for nonleakers.

Units Provide the associated emission factor unit.

Comment Provide any additional information necessary for calculation

of emissions.